DOCUMENT RESUME

ED 253 030 EC 171 364

TITLE	Resource Manual for Functional Vision Evaluation. Technical Assistance Bulletin.
INSTITUTION	Texas Education Agency, Austin. Div. of Special Education.
PUB DATE	Nov 84
NOTE	41p.
AVAILABLE FROM	Texas Education Agency, Publications Distribution Office, 201 East Eleventh St., Austin, TX 78701 ($1.00, Publication No. GE-5-715-01).
PUB TYPE	Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Vision Tests; Visual Acuity; Visual Environment; *Visual Impairments; *Visual Perception

ABSTRACT

The manual was intended to help school personnel (either an educator of the visually handicapped and/or a certified orientation and mobility instructor) evaluate the functional use of residual vision. The manual is organized in three major sections, which cover the following: (1) the general areas addressed in functional vision evaluation (such as eligibility statement, background data); (2) a checklist identifying items and concepts for possible investigation (including items on medical history and assessment of visual perception, indoor and outdoor visual functioning); and (3) suggested assessment activities to determine the student's visual functioning. Assessment activity information includes a designation of the types of students for whom the activity is particularly useful and suggested materials. The sources for some commercially available testing materials are listed in the appendix. (CL)

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Resource Manual For Functional Vision Evaluation

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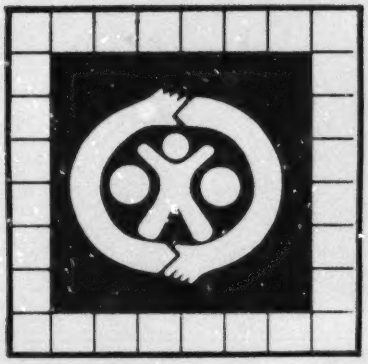

Resource Manual For Functional Vision Evaluation

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AUSTIN, TEXAS
NOVEMBER 1984

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INTRODUCTION

Texas State Board of Education rules* on eligibility of visually handicapped students for special education require that an educator of the visually handicapped and/or a certified orientation and mobility instructor evaluate the functional use of any residual vision. This manual was developed to help school personnel meet that requirement and to help make the evaluation a useful tool in planning for future educational needs.

The manual has been compiled by consultants for the visually handicapped at the 20 regional education service centers with assistance from the Division of Services for the Visually Handicapped, Texas Education Agency. It is designed to suggest areas which should be addressed by the evaluation, along with activities and materials experienced practitioners have found useful.

The manual is divided into three sections. Section A describes the general areas which should be addressed in every functional vision evaluation report. Section B is a worksheet or checklist identifying items and concepts which should be considered by the vision evaluator for possible investigation. Section C details some suggested assessment activities to determine the student's visual functioning. The appendix identifies specific commercial resources and materials identified by the developers of the manual as useful in carrying out various activities. It is not meant to be exhaustive.

*State Board of Education Rules for Handicapped Students (AD4 701 01)

§89.211(d)--"Visually handicapped student. A student who has been determined by a licensed ophthalmologist or optometrist to have no vision or to have a serious visual loss after correction. The visual loss should be stated in exact measures of visual field and corrected visual acuity at distance and near in each eye. The report should also include prognosis whenever possible. If exact measures cannot be obtained, the eye specialist must so state and give best estimates. For students having residual vision, a functional vision evaluation shall be performed. Functional vision shall be evaluated by a professional certified in the education of the visually handicapped or a certified orientation and mobility instructor. The evaluation must include the performance of tasks in a variety of environments requiring the use of both near and distance vision."

SECTION A

Narrative Format for
Functional Vision Evaluation Report

NAME:

DATE OF EVALUATION:

ISD/SCHOOL:

EVALUATOR'S NAME AND TITLE OR CREDENTIALS:

STUDENT'S DATE OF BIRTH:

STUDENT'S GRADE/PLACEMENT:

Eligibility Statement

Address whether or not student meets eligibility criteria for visually handicapped as defined by State Board of Education rules.

Medical History

Present a summary, in layman's terms, of the ophthalmologist's or optometrist's report and other pertinent medical reports or information.

Functional Vision Assessment Results

Describe vision assessments performed and results in the following four areas:

- physical/optical (Assessment Area I)
- visual perception (Assessment Area II)
- indoor visual functioning (Assessment Area III)
- outdoor visual functioning (Assessment Area IV)

Indicate the type of correction the student wore during the assessment and describe the FUNCTIONAL IMPLICATIONS OF THE VISUAL HANDICAP FOR THE EDUCATIONAL PROCESS.

Recommendations

- Restate the evaluator's opinion as to student eligibility for visually handicapped services. State recommendation for instructional services related to the visual handicap.
- Recommend referrals for related services and other types of evaluations.
- Provide specific recommendations for helping the student function in the school, home, and community.

_____
Evaluator's Signature
Typed Name/Title

SECTION B

Worksheet for
Functional Vision Evaluation Report

NAME:

DATE OF EVALUATION:

ISD/SCHOOL:

EVALUATOR'S NAME AND TITLE OR CREDENTIALS:

STUDENT'S DATE OF BIRTH:

STUDENT'S GRADE/PLACEMENT:

Eligibility Statement

- The report from the opthalmologist or optometrist must show that the student either:

  _____ has no vision, or

  _____ has a serious visual loss after correction.

- The report from the ophthalmologist or optometrist must state the type of impairment and severity of impairment.

  _____ yes _____ yes

  _____ no _____ no

- If the student has residual vision, a functional vision evaluation must have been completed.

  _____ yes

  _____ no

- The functional vision evaluation report must include a description of the educational implications of the handicapping condition.

  _____ yes

  _____ no

Medical History

- Summary of general health history. Give name(s) of doctor(s) and date(s) of report(s) summarized.

- Summary of vision history. Give name(s) of doctor(s), type(s) of specialist(s) and date(s) of report(s) summarized.

  .. Diagnosis

  .. Etiology (including age of onset)

  .. Prognosis

  .. Treatment (including prescription for lenses, low vision aids, training for low vision aids, medication, surgery, etc.)

  .. Recommended restrictions on physical activity (if any)

  .. Visual field

     ... Central vision

     ... Peripheral vision

  .. Acuity (use chart)

ACUITY	DISTANCE VISION			NEAR VISION		
	Without Correction	*With Correction	With Low Vision Aid (Aid:)	Without Correction	*With Correction	With Low Vision Aid (Aid:)
Right eye OD						
Left eye OS						
Both eyes OU						

*Use terminology which can be transferred to Agency form Registration of Visually Handicapped Students.

  .. Other

     ... Color vision

     ... Night vision

     ... Muscle balance

     ... Nystagmus

- Summary of otological examination and/or audiologist's report (when appropriate). Give name(s) of evaluator(s) and date(s) of evaluation(s).

Functional Vision Assessment (Outline codes are correlated to Section C)

Lenses or low vision aids the student was wearing during the assessment:

Assessment Area I: Physical/Optical

A. Visual Acuity (as measured by the evaluator--specify how measured)

1. Distance:

2. Near:

3. Ocular Motility:

For Multiply handicapped:

Pupillary response:

Fixation:

Accommodation/focus:

Tracking ability:

Size objects respond to:

Distance of objects from student:

B. Field of Vision (state how determined)

1. Restrictions:

2. Preferences:

C. Color Deficiencies

Assessment Area II: Visual Perception

A. Awareness/attention

B. Discrimination

C. Closure

D. Memory

E. Figure Ground

F. Depth Perception

G. Eye Dominance

H. Comprehension

I. Eye-hand Coordination

For Multiply handicapped:

Positioning for the student:

People and objects attended to (attention to some, but not others):

Colors the student responds to:

Ability to visually recognize and comprehend common objects:

How the student explores objects/ people:

Assessment Area III: Indoor Visual Functioning

A. Close Work

1. Lighting

Evaluation of existing lighting conditions:

Preferred lighting:

2. Reading

How does student adjust the size of the image?

Smallest print size student can read:

At what distance?

For how long?

What low vision aids are used?

Sustained reading:

How well?

When does student show fatigue?

Time:

Which activities might require extra time for student?

How much?

Dittos and other types of materials:

Format of written materials:

Other comments:

3. Writing/drawing

Type of paper/pen:

Other assistance:

Time:

Which activities might require extra time for student?

How much?

4. Aids

B. Distance Work

1. Chalkboard
2. Projected images--overhead/film/television
3. Scanning of environment--auditorium, cafeteria, classroom
4. Object location
5. For multiply handicapped--ability to recognize familiar people/objects at distance
6. Use of optical aids

C. Indoor Travel

1. Building/classroom
   orientation:
   lighting:
   depth perception:
   object identification:
2. Obstacle course
3. Search/retrieval

Assessment Area IV: Outdoor Visual Functioning

A. General Functioning

1. Light sensitivity
2. Object detection
3. Basic signs
4. Depth perception
5. Aids

B. Outdoor Travel

1. Home to school
2. School campus
3. Curbs and sidewalks
4. Effects of environment--rain, snow, light, shadows
5. Parent limitations on mobility (if any)

FUNCTIONAL IMPLICATIONS OF THE VISUAL HANDICAP FOR THE EDUCATIONAL PROCESS

- Cognitive development
  - .. Experiential knowledge and skills
  - .. Concepts
  - .. Spatial relationships
  - .. Directionality
- Social/emotional development
  - .. Awareness of other's social cues
  - .. Independence
  - .. Leadership in class
  - .. Disciplinary actions
  - .. Personal adjustment
  - .. Peer acceptance and interaction
- Motor development
  - .. Posture
  - .. Balance
  - .. Movement
  - .. Physical education
  - .. Field trips
  - .. Independent living skills

Recommendations

- Eligibility status as visually handicapped
- Instructional services related to the visual handicap. For each service identify:
  - .. For what purpose (special skill training, basic concepts, etc.)
  - .. By whom
  - .. Direct/indirect
  - .. Frequency/duration
- Other evaluations recommended and reason for them (orientation and mobility, occupational therapy, physical therapy, low vision aid, etc.)
- Related services and justification related to the visual handicap
  - .. Orientation and mobility
  - .. Other (e.g., counseling)
- Other services (e.g., rehabilitation services, job training programs, etc.)
- Registration with the Texas Education Agency to obtain services (e.g., textbooks, educational aids, consultative and technical assistance from regional education service center)
- Registration with other agencies to obtain services (e.g., Texas State Library--supplemental reading materials, etc.; Texas Commission for the Blind--children's services/vocational services; Recording for the Blind--taped textbook materials)
- Instructional strategies/environmental considerations
  - .. Auditory/visual/tactual learner
  - .. Sighted guide or assistance
  - .. Organization of classroom(s)
  - .. Changes in routine/disaster drills
  - .. Allowance for time/fatigue
  - .. For desk work and chalkboard
    - ... Seating/lighting
    - ... Positioning (of materials)
  - .. Other environmental modifications needed

. Instructional materials/equipment (clearly specify type of each)

Auditory	Visual	Tactual
Tapes/equipment cassette reel-to-reel Talking books and equipment Voice output equipment Reader services Music instruments	Large type textbooks Size and clarity of type Pens/pencils Low vision aids Reading stands Regular textbooks Large print typewriter	Slate and stylus Braillewriter Optacon Abacus Braille books Maps, globes, charts Clay, sand writing Sandpaper Water

. Multiply handicapped (or very young children)

.. Motivating visual events--attention

.. Posture(s)/positioning/(adaptive equipment)

.. Where to present objects--presentation distance

.. Type of toys/lights to try

.. What reactions to expect

.. Ways to stimulate cognition and hearing along with vision

.. Where to obtain stimulating toys and other materials

SECTION C
INTRODUCTION

This section presents various activities in the four assessment areas:

- Physical/Optical
- Visual Perception
- Indoor Visual Functioning
- Outdoor Visual Functioning

The above areas correspond to the Functional Vision Assessment Areas listed in the Worksheet for Functional Vision Evaluation. The assessment activity column describes the suggested assessment activities. The student column contains codes for the types of students for whom the activity is felt to be particularly useful [VH--"normal" school-age visually handicapped students, EC--young (ages 0-6) visually handicapped students, MH--low functioning students of all ages]. The materials column lists some suggested materials which may be used for completing the activity. The sources for some of the commercially available testing materials are listed in the appendix.

SECTION C

ASSESSMENT AREA: I. Physical/Optical Area

A. Visual Acuity

Assessment Activity	Student	Materials
1. Distance (For all activities consider lighting conditions/contrast. Also evaluate each eye separately and then eyes together.)		
a. Use of commercially prepared vision tests	VH EC Some MH	Snellen Charts Lighthouse Flashcards or Chart HOTV Stycar Vision Tests Titmus Sloan Eye Charts PVAT
. Follow the specific instructions for the particular testing materials being used. In general: place student in a chair at designated distance from chart. Chart should be eye level and well lighted without glare. Have student name/match/identify letters or symbols from largest to smallest print or symbol. Use isolation windows to single out individual letter if confusion seems evident; otherwise, use a pointer. Double check against memorization by skipping around and varying lines and letters or symbols. (Note: Some students will need training activities, such as matching games, in order to facilitate accurate testing.)		
. Retest any students who do poorly, especially young children whose increasing maturity may result in better performance.		
b. Acuity testing with objects is normally done when a student is not able to be tested using standardized methods. Although a precise distance visual acuity will not be obtained, careful documentation during testing of the size of the object or person perceived and the distance at which the student perceived the object or person can yield a rough measure of distance visual acuity. For example: if the student indicates perception of a person five feet away but not 10 feet away, the functional information indicates the student does not see a five to six foot object at a distance of 10 feet. Similar types of activities follow. (Start evaluation at five feet and graduate to further distance.)	EC MH	Resources: Functional Vision Screening (Langley and DuBose) A Vision Guide for Teachers (Efron and DuBoff)

ASSESSMENT AREA: I. Physical/Optical Area

A. Visual Acuity

Assessment Activity	Student	Materials
. Observe student's reaction to movement of various size objects. Move objects by rolling, bouncing (beware of sound cues), or waving at a fast or slow pace in various patterns and distances. Note size of object and distance at which child perceived the object.		Hands, flashlight, penlight, Christmas tree lights, balls, shiny toys, other favorite objects or toys
. Have student count fingers presented by assessor by naming number or imitating.		Light colored background (such as 2' x 2' gray felt)
. Student imitates body positions at various distances using the following strategies: .. student imitates assessor's position (such as hands over head) .. student imitates pictured body positions (Start with six inch pictures and go to life-size ones which have no or little figure-ground confusion)		Pictures with simple background and body positions in foreground
2. Near		
a. Blink response--With fingers spread and in a slow movement bring hands toward the student's eyes. Look for a blink reflex. This may also be done with an object.	EC MH	Hand Objects
b. Use of commercially prepared near vision test materials . Hold or place the near-vision test card eye level at a designated distance from the seated student. Have student name/match/identify letters or symbols from largest to smallest print or symbol. Use isolation windows to single out individual letters if the student appears confused. Double-check against memorization.	VH EC Some MH	Lighthouse Flashcards PVAT Near vision tests
. Present student with optokinetic drum at 10". Oscillation of eyes indicates basic visual fixation. Caution is advised for students with seizures.	EC MH	Optokinetic drum

ASSESSMENT AREA: I. Physical/Optical Area

A. Visual Acuity

Assessment Activity	Student	Materials
c. Near acuity testing with objects. Once again this type of testing is normally done when a student cannot be tested with standardized methods. Note the size of the object, the distance and plane in which the student was able to perceive it, and variations in contrast with the surface or background.	EC MH	Small (1mm) cake decorations or candies Other objects, toys, etc.
. Place a number of small objects on a 16 inch range and have the student locate specific items.		String, cake bead decorations, raisins, M&Ms, Lifesavers, cookie crumbs, marbles, any small toy.
. Move or hold objects in front of student's face at various distances in varying planes and locations. Note any attempt to fixate on or react to object.		Penlight, lights, small brightly colored objects (two inch or more in size), patterned boards, and other objects
. Give the student an object and note the distance and position in which the student examines the object. Repeat several times with various items to determine the student's preferred near distance and field.		Objects which are attractive to the student and can be held in the hand
3. Ocular Motility		
a. Pupil response--Shine a light into the student's eyes and look for pupil constriction. A darkened room will give better results. Also, note whether the pupil reflex is even in both eyes in order to check for possible muscle imbalance. Examine for photophobia.	VH	Penlight Filtercaps
b. Convergence--Have the student look at an object approximately 10 inches to 12 inches from face. Bring the object toward the eyes and centered until approximately four inches to five inches away from face. Note whether the eyes focus together.	VH EC MH	Various objects Finger puppets
c. Accommodation--Place one object 15 inches away from student and another 10 inches to 12 inches away. Have student point to/identify/match the closest object and then the farthest object. Repeat at various placements using the near and distance extremes of the student's vision. Note ability to focus from near to distant object and vice versa.	VH EC Some MH	Various brightly colored objects; vary size until student is able to react.

ASSESSMENT AREA: I. Physical/Optical Area

A. Visual Acuity

Assessment Activity	Student	Materials
d. Tracking--Present a penlight or attractive object in midline approximately eight inches from student. Move the target horizontally at a slow speed. Observe whether student can maintain visual fixation while target is moved. Also, observe the student's ability to follow a target across the midline and tracking skills when the object is moved vertically, obliquely, and in a circle.	VH EC MH	Penlight Various small toys

ASSESSMENT AREA: I. Physical/Optical Area

B. Field of Vision

Assessment Activity	Student	Materials
1. Field Loss Tests		
a. Have student sit on the floor or in a chair and focus on an object or person at a distance of 18 inches or more. One person behind the student slowly moves an object toward the front in a semicircle approximately one foot from the student's head. A second person in front notes the position of the object when the student first notices it coming into the field of vision. This exercise will identify areas of the periphery in which the student does not respond visually. Repeat the activity at least once in the four quadrants (left, right, above, and below) and also repeat to vary the distance of the object from the student's head. The room may be darkened to provide more contrast when penlights or flashlights are used. Objects selected should be consistent with the functioning levels of the student, both visually and cognitively.	MH VH EC	Penlights (with or without colored filters) Flashlight Favorite toy Bottle Finger puppets (may be on penlights) Attactive toy (shiny silver rattle or L'eggs silver container) Day-glo tennis ball on a 12 inch stick or dowel Vision discs and hand discs Colored caps
b. Mark off four quadrants of a black sheet with tape (not florescent). Put the student on stomach. Bring a variety of objects into different quadrants. Place student on back and repeat activity.	MH EC	Lights Favorite toy that is 2 inches to 8 inches in diameter (ball, rattle, stuffed toy) Black sheet Tape
c. In a darkened room, have student fixate on a white penlight as a central target. Briefly flash a penlight with red filter in all quadrants and areas of the visual field. Student indicates which positions are detected.	VH	Penlight Red and white filters
d. Lite-Brite Board: Student concentrates on one central white peg while one red peg is moved in varying positions. Student indicates which positions of the red peg can be seen.	VH	Lite-Brite Board
e. Present various brightly colored or light reflecting toys in various positions; student should indicate when they can be seen or should reach for the item.	MH EC	Raisins M&Ms Any brightly colored, attractive toy

ASSESSMENT AREA: I. Physical/Optical Area

B. Field of Vision

Assessment Activity	Student	Materials
2. Field Preference Over several trials, place two of the same toys or items in two different quadrants in front of the student starting at a distance of 18 inches. (Student should have eyes closed while objects are being placed.) Observe whether the student consistently reaches for or fixates on objects in a particular quadrant, thus showing a field preference.	MH EC	Flicker lights M&Ms
3. Scanning Place numbers or letters of various types, styles, and sizes on chalkboard. Student calls out each symbol.	VH	Chalk and chalkboard

ASSESSMENT AREA: I. Physical/Optical Area

C. Color Deficiencies

Assessment Activity	Student	Materials
1. Use of commercially prepared assessments Refer to appropriate manual for correct method of test administration.	VH MH EC	Ishihara Color Blindness Test Dvorine Wool Color Strand Matching Test Dvorine Pseudoisochromatic Plates
2. Color deficiency testing with objects Place various colored items in front of student who is then asked to demonstrate color awareness by any of the following methods: . match and/or sort items of same size and shape by color . match and/or sort items of different sizes and shapes by color . match and/or sort various colored items by hue . arrange (sequence) various graduated colored items by hue . select or point to items of the color named by the evaluator . name the color of an item presented by the evaluator	MH EC Some VH	Color discs (from Peabody kit) Blocks or colored cubes Colored paper Colored beads Puzzles Kiddie Tonks First Blocks (Fisher Price) Paint chips Penlights with caps (from APH Sensory Stimulation Kit) Teacher-made matching boards (such as colored circles placed on a 4" x 4" card with separate colored circles for the student to match to the circle on the card)

ASSESSMENT AREA: II. Visual Perception

Assessment Activity	Student	Materials
A. Awareness/Attention		
1. Present bright toys or lights and observe whether or not the student visually fixates on the stimulus. If visual fixation is difficult to attain, the human face is one of the most motivating stimuli during very early development and may elicit a response where objects or lights fail.	EC MH	Finger puppets with light inside Flashlights/color caps Penlights/color caps APH Sensory Stimulation Kit materials A "familiar face"
2. Present bright, abstract patterns and observe whether student visually fixates on the stimulus. Students functioning at a very early level (about one month) will tend to prefer large over small and horizontal over checkerboard or vertical patterns.	EC MH	Patterned cards Checkerboard Pinwheel Tin foil reflector Large shape cards in solid florescent colors
B. Discrimination		
1. Place various items in front of student. Student is asked to demonstrate visual discrimination by any of the following methods: . match items one-to-one . identify (name) familiar items . sort or categorize items	EC MH VH	Formboards Crayolas Shape cards Patterned cards Color cards Letter cards Number cards Word cards Simple pictures of objects Real objects such as silverware, cups, shoes, socks, and toys
2. Give student a pattern to be duplicated, such as parquetry or a design drawn on paper. Observe student's visual perceptual and motor skills in reproducing the design.	EC MH VH	Block designs Parquetry designs Reproduction with paper/pencil of: shapes symbols numbers letters words sentences
C. Closure		
1. Present student with a partically drawn puzzle, simple design, or picture to be completed.	EC MH VH	What's missing cards Visual closure cards Teacher-made cards

Assessment Activity	Student	Materials
2. Partially cover a familiar toy or other object with a scarf and ask student to identify the object.	EC MH	Toys, etc. Scarf or blanket
3. Ask student to identify objects partially hidden in pictures.	EC MH VH	Pictures within pictures Hidden picture cards Highlights magazine
4. Ask student to complete a simple puzzle. Observe any ability to comprehend and produce the overall design.	EC MH VH	Two to 12 piece puzzles Dot-to-dot
D. Memory		
1. Present two or more items for a brief period. Cover items and remove one. Remove cover and ask student to identify the missing item or pick out the original items presented from a larger group.	EC MH VH	Any small toys Geometric shapes Scarf or blanket
2. Present two or more items in a patterned sequence for a brief period. Cover and ask student to recall items. Note if the sequence is correct. Can the student choose the correct items from a group and replace them in the original sequence.	EC MH VH	Any small toys Geometric shapes
E. Figure Ground		
1. Ask student to locate numbers, letters, or objects placed against a patterned background.	EC	Wallpaper Figure-ground transparencies Frostig materials
2. Ask student to identify a short word imbedded in a longer word.	VH	Words such as scarf, position or incandescent
F. Depth Perception Student sits at end of table. Place two colored blocks on table with one block closer than the other. Ask student to identify the closer block.	VH	Two colored blocks Stereo Depth Test Slides Depth Perception Gauge

ASSESSMENT AREA: II. Visual Perception

Assessment Activity	Student	Materials
G. Eye Dominance		
1. Cut a round hole in the middle of an 8" x 10" sheet of paper. Put a quarter on the floor and ask the student to locate the coin while looking through the hole at arm's length. While student is looking at coin, the evaluator covers each of the student's eyes in turn and asks if they still see the coin. The eye with which the student sees the coin is the dominant eye.	VH	Paper Quarter
2. Ask the student to look through a telescope. Most will automatically hold the telescope up to their dominant eye.	EC MH VH	Telescope Rolled up paper Kaleidoscope
H. Comprehension		
1. Present common objects and observe whether student manipulates them in ways which indicate visual/social comprehension. (e.g., a play comb being used to comb a doll's or the student's own hair as opposed to being mouthed or thrown).	EC MH	Toy--especially the "play house" kind Mealtime items Grooming items
2. Ask student to put picture story cards in a logical sequence. Observe ability to visually comprehend individual pictures as well as the entire sequence of events.	VH	Picture sequence cards
I. Eye-hand Coordination	EC MH VH	
1. Ask student to place objects into containers. Observe accuracy of reach, grasp, transfer, and release.		Containers Objects
2. Ask student to cut out a paper pattern. Observe accuracy as well as motor skill in using scissors.		Scissors Pattern
3. Ask student to copy paper patterns with paper and pencil. Observe student's accuracy in perceiving the pattern as well as the motor skill demonstrated in producing it.		Paper Pencil or markers Designs Numbers Letters Words Sentences

ASSESSMENT AREA: II. Visual Perception

Assessment Activity	Student	Materials
4. Engage student in throwing and catching a ball at varying distances. Observe student's visual and motor skills.		Ball
J. Use of commercial visual perception tests Follow directions in test manual to administer tests.	VH Some EC	Frostig Developmental Test of Visual Perception Visual Efficiency Scale Diagnostic Assessment Procedure DASI GATE Motor Free Visual Perception Test

ASSESSMENT AREA: III. Indoor Visual Functioning

A. Close Work

Assessment Activity	Student	Materials
1. Lighting a. Evaluation of existing lighting conditions--look for flickering lights in the environment, amount of natural light available, glare on specific surfaces, and type and amount of light already available in the classroom.	VH EC MH	
b. Determine preferred lighting by providing a variety of conditions and asking student to tell which is best. Students could also be observed under various lighting conditions and a judgment made by the evaluator as to the best. The following aspects of lighting conditions should be explored: . type (incandescent, florescent, natural) . intensity . direct vs indirect		Low/high intensity lamps Desk materials
2. Reading Determine suitable size and boldness of print for reading through using materials appropriate to the student's level of functioning. Note the following: . student's eye movements in tracking across the page and from one line to another . the type of spacing for words and lines on the paper with which the student functions best . the type and color filter paper and/or highlighters needed . student's preferred body position and distance and placement of reading material . the amount of time the student can read a given print size without fatigue	VH EC	Textbooks or other books in various print size Informal (graded) reading inventories in various print sizes Encyclopedias Dictionaries Telephone book Newspaper Magazine Handwritten materials Dittos: purple, black Maps Charts Graphs Reading stand Filter paper Highlighter pens

ASSESSMENT AREA: III. Indoor Visual Functioning

A. Close Work

Assessment Activity	Student	Materials
3. Writing and Drawing Present student with a design, math problem, or written material to be copied. Allow the student to experiment with various writing tools. Observe the following aspects of writing needs and abilities: . body position and position and distance of materials . best writing implements and writing style (manuscript or cursive) so the student and others can read what is written . type of spacing on answer sheets needed . amount of time needed to complete the task	VH EC	Reading stand Writing materials-pencil, pens, paper Felt pens, markers Boldline paper Raised line paper Typewriter Work sheets/answer sheets
4. Aids	VH	
a. Allow student to use closed-circuit T.V. and observe whether visual functioning is enhanced.		Visualtek Pelco Electronic Visual Aid View Scan
b. Allow student to use different optical aids with various materials, print styles, paper colors, and paper types. Observe whether visual functioning is increased with any single aid.	VH	Optacon display filters Hand-held or stand magnifiers Filters Spacing devices

ASSESSMENT AREA: III. Indoor Visual Functioning

B. Distance Work

Assessment Activity	Student	Materials
1. Present written material on the chalkboard(s) and ask student to read or copy the material. Vary the color and type of chalk and chalkboard as well as size and style of written material. Observe or ask student to identify the best materials, optical aids, and position in the room.	VH Some EC	Chalk and chalkboard Paper, pencil
2. Show various projected images and ask student to identify them. Note the need for and use of optical aids, the types of images best perceived, the best position for the student, and the percentage of information actually attained from the projected images.	VH Some EC	Overhead projector Films Slide projector
3. Have student stand in the doorway of an unfamiliar room and describe the contents and layout.	VH Some EC	An unfamiliar classroom or other location in building
4. Name a newly-placed object in a room and ask student to scan the room from the doorway and describe or point to it. Repeat activity with object placed at varying distances from student.	VH Some EC MH	Any object such as a TV, large painted box, an iron (must be an object the student is familiar with) A familiar person
5. Roll a ball about 5 or 10 feet and ask the student to retrieve it.	EC Some MH	Ball
6. During previous activities, allow student to try various optical aids to see if visual performance is increased by their use. Evaluator should note types of aids which allow the best performance as well as asking the student which are preferred.	VH Some EC	Various telescopes

ASSESSMENT AREA: III. Indoor Visual Functioning

C. Indoor Travel

Assessment Activity	Student	Materials
1. Ask student to take evaluator on a tour of the school building or classroom, answering questions along the way about various objects that can be seen. Ask student to take evaluator to specific locations in the building or classroom, such as cafeteria, restroom, student's desk or teacher's desk. Observe the following aspects of the student's travel abilities: . orientation to the building/classroon . types of visual clues used by the student . behavior under various lighting conditions and effect of lighting changes . object avoidance . depth perception (especially on stairs) . ability to identify landmarks and read signs . gait, posture and confidence in traveling	VH Some EC	School building/classroom
2. Ask student to negotiate an obstacle course. Observe ability to visually perceive and follow the course, including motor planning.	EC MH Some VH	Various simple or complex obstacle courses--tape or ribbon marked on floor, "jungle gyms," or furniture positioned to design a course
3. Place (or hide) an object in the classroom and ask student to retrieve it. Note scanning and search strategies as well as ability to avoid obstacles and travel to and from the object.	EC Some VH MH	Classroom Various objects to be retrieved

ASSESSMENT AREA: IV. Outdoor Visual Functioning (May be part of the orientation and mobility evaluation)

A. General

Assessment Activity	Student	Materials
1. Light Sensitivity	VH EC MH	
a. Have student travel a route under variety of lighting conditions. Observe: . ability to detect drop-offs . ability to read signs . ability to locate landmarks . reaction to any light changes		Bright sunlight, cloudy sky, etc. Shade Various times of day
b. Assess student's mobility and evaluate ability to locate objects in light and dark.		Night conditions and daylight
c. Have student try Noir glasses or other aid (e.g., visor) to compare functioning with and without them.		Ncir glasses Visors Caps Sunglasses Sport glasses
d. Place student in a variety of positions in relation to sun and evaluate preferences and reactions.		
2. Object Detection		
a. Have the student walk through an outside obstacle course.	VH EC MH	Obstacle course
b. Play a toss and catch game with the student, observing ability to perceive a moving object under various lighting conditions.		Bean bags Yellow tennis balls Soccer ball
c. Place balls or toys of various sizes at varying distances on the playground or parking lot. Ask student how many he or she sees. Observe the student's scanning skills, scanning rate, and distance at which the student can see the objects. Note posture and gait as the student retrieves the objects.	EC MH	Balls or toys of various sizes Yellow tennis balls Soccer ball
d. Ask student to describe the number, colors, and types of cars located in the parking lot. Note distance at which student can describe accurately.	VH	Parking lot with cars
e. Ask student to identify color and type of cars as they move along a street at various speeds.		Street with traffic

ASSESSMENT AREA: IV. Outdoor Visual Functioning (May be part of the orientation and mobility evaluation)

A. General

Assessment Activity	Student	Materials
3. Basic Signs a. Ask student to read basic signs, i.e., license plates, street signs, bus numbers, business signs, exit signs. b. Have student travel a prescribed route that would require reading signs along the way. Instructor should note distance, effect of lighting conditions and glare, student's knowledge of sign placement, use of low vision aids as a tool, use of effective scanning techniques, and posture and gait. This activity should be repeated as the student's visual functioning may vary from day to day.	VH Some EC	Environment--including street signs billboards store signs building addresses bus numbers exit signs
4. Depth Perception Ask student to travel a route with drop-offs and irregular terrain of varying depths. Repeat the activity under different lighting conditions including poor contrast, glare, and non-glare areas.	VH	Curbs and sidewalks Stairs Hill, grassy areas
5. Aids Allow student to use various optical aids during the previous and the following travel activities. Observe whether visual functioning is increased.	VH Some EC	Various telescopic aids

ASSESSMENT AREA: IV. Outdoor Visual Functioning (Generally part of the orientation and mobility evaluation)

B. Outdoor Travel

Assessment Activity	Student	Materials
1. Home to School	VH	
a. Observe student walking route from school to home and home to school, if appropriate.		
b. Observe student traveling in home neighborhood.		
2. General Orientation to School Campus	VH EC Some MH	
a. Have student explore the playground at school to check awareness of swings, play areas for ball games, various objects, plants, flowers, etc.		
b. Observe the student's ability to locate the school bus, climb the steps, and find a seat.		
c. Check the student's ability to follow directions for the fire drill.		
d. Check the student's ability to negotiate obstacles and drop offs over a specific travel route.		
e. Observe the student's participation in physical education indoors and outdoors.		
3. Curbs and Sidewalks	VH EC	
a. Join the students on their walk to or from school or to and from the school bus to determine use of sidewalks and ability to negotiate curbs and other elevations.		
b. While traveling a route in the neighborhood, ask the student to locate the crosswalks.		
4. Effects of Environment	VH EC Some MH	
a. Observe student's behavior in different climate or weather conditions.		
b. Observe student's behavior while traveling in cars or on public transportation.		
c. Observe student's ability to handle and negotiate large groups of people, during lunch time, school-wide programs, and class changes.		

ASSESSMENT AREA: IV. Outdoor Visual Functioning (Generally part of the orientation and mobility evaluation)

B. Outdoor Travel

Assessment Activity	Student	Materials
5. Parents' Limitations on Mobility Observe and discuss parents' willingness to allow student to move idependently in various environments.	VH EC Some MH	

RESOURCES

ITEM:	AVAILABLE FROM:
Developmental Assessments DASI (Developmental Activities Screening Inventory) GATE (Gestural Approach to Thought and Expression)	Teaching Resources 50 Pond Park Road Hingham, Massachusetts 02043-4382
Diagnostic Assessment Procedure (Part of "Program to Develop Efficiency in Visual Functioning")	American Printing House for the Blind, Inc. 1839 Frankfort Avenue Louisville, Kentucky 40206
DLM	DLM P. O. Box 4000 One DLM Park Allen, Texas 75002
Dvorine Pseudoisochromatic Plates	The Psychological Corporation 7500 Old Oak Blvd. Cleveland, Ohio 44130
Dvorine Wool Color Strand Matching Test	Bernell Corporation 750 Lincolnway East P. O. Box 4637 South Bend, Indiana 46634
Marianne Frostig Developmental Test of Visual Perception	Publishers Test Service 2500 Garden Road Monterey, California 93940-5380
Functional Vision Screening for Severely Handicapped Children	Langley, M. B. and DuBose, R. F. New Outlook for the Blind, October 1976.
Highlights Magazine	Highlights for Children, Inc. 2300 W. Fifth Avenue P. O. Box 269 Columbus, Ohio 43216
HOTV	Goodlite Company 7426 Madison Street Forest Park, Illinois 60130
Ishihara Color Blindness Test	Bernell Corporation 750 Lincolnway East P. O. Box 4637 South Bend, Indiana 46634
Lighthouse Flashcard Vision Test for Children	New York Association for the Blind Low Vision Lens Service 111 East 59th Street New York, New York 10022

ITEM:	AVAILABLE FROM:
Motor Free Visual Perception Test	The Psychological Corporation 7500 Old Oak Blvd. Cleveland, Ohio 44130
Near Vision Test (Symbols for Children) (Apple-House-Umbrella)	New York Association for the Blind Low Vision Lens Service 111 East 59th Street New York, New York 10022
Noir Sunglasses	Recreational Innovations Company P. O. Box 159 South Lyon, Michigan 48178
Optacon	Telesensory Systems, Inc. 1889 Page Mill Road Palo Alto, California 94394
Optokinetic Drum	House of Vision Instrument Company P. O. Box 31785 Dallas, Texas 75231
Parsons Visual Acuity Test (PVAT)	Bernell Corporation 750 Lincolnway East P. O. Box 4637 South Bend, Indiana 46634
Peabody-Functional Vision Inventory for the Multihandicapped	Stoelting Company 1350 S. Kostner Avenue Chicago, Illinois 60623
Pelco Electronic Visual Aid	Pelco Sales, Inc. 351 East Alondra Boulevard Gardena, California 90248
Sensory Stimulation Kit (APH)	American Printing House for the Blind, Inc. 1839 Frankfort Avenue Louisville, Kentucky 40206
Sloan Eye Chart	New York Association for the Blind Low Vision Lens Service 111 East 59th Street New York, New York 10022
Snellen Charts	National Society to Prevent Blindness 79 Madison Avenue New York, New York 10016-7896
Stereo Depth Test Slides	Titmus Optical, Inc. Petersburg, Virginia 23803

ITEM:	AVAILABLE FROM:
Stycar Vision Tests	Institute of Psychological Research 34 Fleury Street West Montreal 357 Quebec, Canada
Titmus Vision Tester	Titmus Optical Company Petersburg, Virginia 23803
View Scan	Sensory Aids Corporation 205 West Grande Avenue Suite 110 Bensenville, Illinois 60106
A Vision Guide for Teachers of Deaf-Blind Children	Efron, M. and BuBoff, B. R. North Carolina Department of Public Instruction Division for Exceptional Children Raleigh, North Carolina 27611
Vision Disks and Depth Perception Gauge	Hubbard P. O. Box 104 Northbrook, Illinois 60062
Visual Efficiency Scale	American Printing House for the Blind, Inc. 1839 Frankfort Avenue Louisville, Kentucky 40206
Visualtek	Visualtek 1610 26th Street Santa Monica, California 90404

COMPLIANCE STATEMENT

TITLE VI, CIVIL RIGHTS ACT OF 1964; THE MODIFIED COURT ORDER, CIVIL ACTION 5281, FEDERAL DISTRICT COURT, EASTERN DISTRICT OF TEXAS, TYLER DIVISION

Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281. Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

(1) acceptance policies on student transfers from other school districts;

(2) operation of school bus routes or runs on a non-segregated basis;

(3) nondiscrimination in extracurricular activities and the use of school facilities;

(4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;

(5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;

(6) nondiscriminatory practices relating to the use of a student's first language; and

(7) evidence of published procedures for hearing complaints and grievances.

In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have occurred or are occurring.

Where a violation of Title VI of the Civil Rights Act is found, the findings are reported to the Office for Civil Rights, Department of Health, Education and Welfare.

If there is a direct violation of the Court Order in Civil Action No. 5281 that cannot be cleared through negotiation, the sanctions required by the Court Order are applied.

TITLE VII, CIVIL RIGHTS ACT OF 1964; EXECUTIVE ORDERS 11246 AND 11375; TITLE IX, 1973 EDUCATION AMENDMENTS; REHABILITATION ACT OF 1973 AS AMENDED; 1974 AMENDMENTS TO THE WAGE-HOUR LAW EXPANDING THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967; AND VIETNAM ERA VETERANS READJUSTMENT ASSISTANCE ACT OF 1972 AS AMENDED IN 1974.

It is the policy of the Texas Education Agency to comply fully with the nondiscrimination provisions of all federal and state laws and regulations by assuring that no person shall be excluded from consideration for recruitment, selection, appointment, training, promotion, retention, or any other personnel action, or be denied any benefits or participation in any programs or activities which it operates on the grounds of race, religion, color, national origin, sex, handicap, age, or veteran status (except where age, sex, or handicap constitute a bona fide occupational qualification necessary to proper and efficient administration). The Texas Education Agency makes positive efforts to employ and advance in employment all protected groups.

Texas Education Agency
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November 1984